Hyperreactio Luteinalis With Clitoromegaly in a Twin Pregnancy

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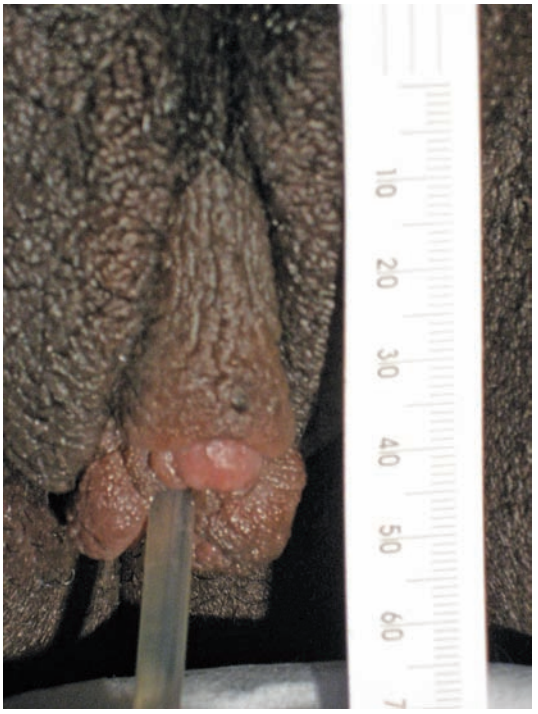

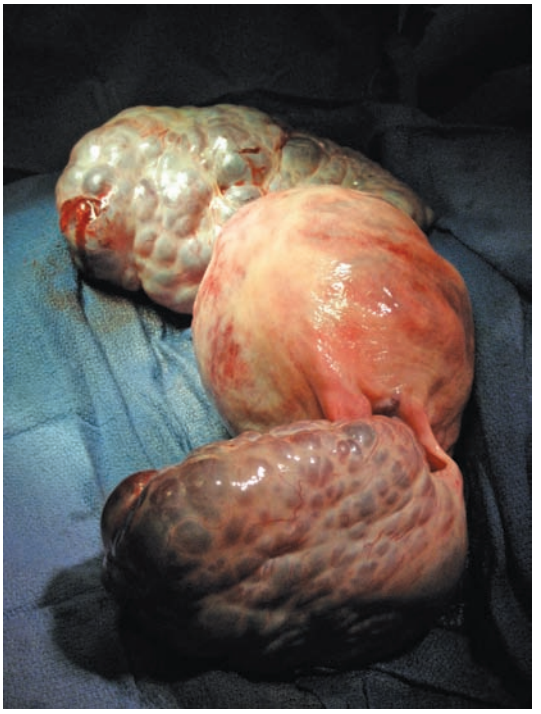

A 27-year-old African American woman (gravida 3, para 2) presented with preterm labor at 32 weeks of gestation. Her prenatal course was complicated by a twin gestation and mild preeclampsia. On initial examination, clitoromegaly was apparent (**left image**) and the patient reported a notable deepening of her voice during pregnancy. The patient was admitted to the hospital for treatment with tocolytics, steroids, and antibiotics. Laboratory results on admission were remarkable for an elevated serum testosterone level (5692 ng/dL; reference range, 2-45 ng/dL). The patient's labor progressed and she underwent cesarean delivery for malpresentation of twin A.

Bilateral enlarged multicystic ovaries were discovered immediately after delivery, and initially impeded attempts to exteriorize the uterus from the peritoneal cavity. The ovaries measured 17 × 17 × 19 (right) and 17 × 19 × 20 (left) cm (**right image**). Frozen section and final pathology

of an ovarian biopsy confirmed benign ovarian tissue with luteal changes. The cystic ovaries were left in situ after repair of the hysterotomy. Pelvic ultrasound performed 8 weeks after delivery confirmed normal ovaries bilaterally with no residual cysts, and the patient experienced resolution of her clitoromegaly.

Hyperreactio luteinalis is an uncommon self-limited syndrome of bilaterally enlarged ovaries with multiple theca lutein cysts.[1] The diagnosis is made during ultrasound evaluation or during cesarean delivery or postpartum tubal ligation. The majority of patients are asymptomatic, but cases of maternal virilization, thyroid dysfunction, hyperemesis gravidarum, preeclampsia, intrauterine growth restriction, and delayed lactation have been reported.[2-6] Elevated serum testosterone levels, δ4-androstenedione, and 5α-dihydrotestosterone may be detected in patients with virilization.[3,4] Hyperreactio luteinalis is more frequently observed in pregnancies complicated by multifetal or molar gestation due to higher circulating levels of human chorionic gonadotropin.[7]

In this case, the patient demonstrated virilization (a deepening of her voice and clitoromegaly) and elevated serum testosterone levels. The multifetal gestation with high levels of circulating human chorionic gonadotropin likely contributed to the development of bilateral theca lutein cysts, and the diagnosis of hyperreactio luteinalis was confirmed by ovarian biopsy.

Potential complications of hyperreactio luteinalis include ovarian torsion, infarction, and hemorrhage. The bilateral ovarian cysts usually regress shortly after pregnancy, and therefore, observation is typically the only required management unless complications occur.[1,7] ■

References

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